

Riccardo Spaccini

List of Publications by Year in descending order

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113
papers

5,485
citations

61857

43
h-index

95083

68
g-index

114
all docs

114
docs citations

114
times ranked

4514
citing authors

#	ARTICLE	IF	CITATIONS
1	Increased soil organic carbon sequestration through hydrophobic protection by humic substances. <i>Soil Biology and Biochemistry</i> , 2002, 34, 1839-1851.	4.2	231
2	Soil remediation: humic acids as natural surfactants in the washings of highly contaminated soils. <i>Environmental Pollution</i> , 2005, 135, 515-522.	3.7	217
3	State of the art of CPMAS ¹³ C-NMR spectroscopy applied to natural organic matter. <i>Progress in Nuclear Magnetic Resonance Spectroscopy</i> , 2004, 44, 215-223.	3.9	173
4	Relationship between molecular characteristics of soil humic fractions and glycolytic pathway and krebs cycle in maize seedlings. <i>Soil Biology and Biochemistry</i> , 2007, 39, 3138-3146.	4.2	164
5	Chemical composition and bioactivity properties of size-fractions separated from a vermicompost humic acid. <i>Chemosphere</i> , 2010, 78, 457-466.	4.2	164
6	Linking organic matter chemistry with soil aggregate stability: Insight from ¹³ C NMR spectroscopy. <i>Soil Biology and Biochemistry</i> , 2018, 117, 175-184.	4.2	160
7	Compost amendments enhance peat suppressiveness to <i>Pythium ultimum</i> , <i>Rhizoctonia solani</i> and <i>Sclerotinia minor</i> . <i>Biological Control</i> , 2011, 56, 115-124.	1.4	150
8	Agricultural waste-based composts exhibiting suppressivity to diseases caused by the phytopathogenic soil-borne fungi <i>Rhizoctonia solani</i> and <i>Sclerotinia minor</i> . <i>Applied Soil Ecology</i> , 2013, 65, 43-51.	2.1	134
9	Bioactivity of Chemically Transformed Humic Matter from Vermicompost on Plant Root Growth. <i>Journal of Agricultural and Food Chemistry</i> , 2010, 58, 3681-3688.	2.4	125
10	Molecular characteristics of humic acids extracted from compost at increasing maturity stages. <i>Soil Biology and Biochemistry</i> , 2009, 41, 1164-1172.	4.2	121
11	Changes of humic substances characteristics from forested to cultivated soils in Ethiopia. <i>Geoderma</i> , 2006, 132, 9-19.	2.3	115
12	Transformation of organic matter from maize residues into labile and humic fractions of three European soils as revealed by ¹³ C distribution and CPMAS- ¹³ C-NMR spectra. <i>European Journal of Soil Science</i> , 2000, 51, 583-594.	1.8	102
13	Sequestration of a Biologically Labile Organic Carbon in Soils by Humified Organic Matter. <i>Climatic Change</i> , 2004, 67, 329-343.	1.7	98
14	Molecular and isotopic study of lipids in particle size fractions of a sandy cultivated soil (Cestas) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 2 soil. <i>Organic Geochemistry</i> , 2006, 37, 20-44.	0.9	90
15	On-farm compost: a useful tool to improve soil quality under intensive farming systems. <i>Applied Soil Ecology</i> , 2016, 107, 13-23.	2.1	87
16	The molecular characteristics of compost affect plant growth, arbuscular mycorrhizal fungi, and soil microbial community composition. <i>Biology and Fertility of Soils</i> , 2016, 52, 15-29.	2.3	87
17	Soil washing with solutions of humic substances from manure compost removes heavy metal contaminants as a function of humic molecular composition. <i>Chemosphere</i> , 2019, 225, 150-156.	4.2	85
18	Polymerization of humic substances by an enzyme-catalyzed oxidative coupling. <i>Die Naturwissenschaften</i> , 2000, 87, 391-394.	0.6	80

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19	Title is missing!. Biogeochemistry, 2001, 53, 1-22.	1.7	78
20	Decomposition of black locust and black pine leaf litter in two coeval forest stands on Mount Vesuvius and dynamics of organic components assessed through proximate analysis and NMR spectroscopy. Soil Biology and Biochemistry, 2012, 51, 1-15.	4.2	77
21	Molecular changes in particulate organic matter (POM) in a typical Chinese paddy soil under different long-term fertilizer treatments. European Journal of Soil Science, 2010, 61, 231-242.	1.8	74
22	Molecular Characterization of Compost at Increasing Stages of Maturity. 2. Thermochemolysis-GC-MS and ¹³ C-CPMAS-NMR Spectroscopy. Journal of Agricultural and Food Chemistry, 2007, 55, 2303-2311.	2.4	73
23	Chemical properties of humic matter as related to induction of plant lateral roots. European Journal of Soil Science, 2012, 63, 315-324.	1.8	71
24	Increased Sequestration of Organic Carbon in Soil by Hydrophobic Protection. Die Naturwissenschaften, 1999, 86, 496-499.	0.6	69
25	Relationships Between Chemical Characteristics and Root Growth Promotion of Humic Acids Isolated From Brazilian Oxisols. Soil Science, 2009, 174, 611-620.	0.9	67
26	Carbohydrates and aggregation in lowland soils of Nigeria as influenced by organic inputs. Soil and Tillage Research, 2004, 75, 161-172.	2.6	66
27	Bioactivity of humic substances and water extracts from compost made by ligno-cellulose wastes from biorefinery. Science of the Total Environment, 2019, 646, 792-800.	3.9	66
28	Binding of Phenol and Differently Halogenated Phenols to Dissolved Humic Matter As Measured by NMR Spectroscopy. Environmental Science & Technology, 2009, 43, 5377-5382.	4.6	64
29	Molecular characteristics of water-extractable organic matter from different composted biomasses and their effects on seed germination and early growth of maize. Science of the Total Environment, 2017, 590-591, 40-49.	3.9	64
30	Effects of a humic acid and its size-fractions on the bacterial community of soil rhizosphere under maize (<i>Zea mays</i> L.). Chemosphere, 2009, 77, 829-837.	4.2	63
31	Effects of on-farm composted tomato residues on soil biological activity and yields in a tomato cropping system. Chemical and Biological Technologies in Agriculture, 2015, 2, .	1.9	63
32	Influence of land use on the characteristics of humic substances in some tropical soils of Nigeria. European Journal of Soil Science, 2005, 56, 343-352.	1.8	58
33	A molecular zoom into soil Humeome by a direct sequential chemical fractionation of soil. Science of the Total Environment, 2017, 586, 807-816.	3.9	58
34	Spectroscopic and conformational properties of size-fractions separated from a lignite humic acid. Chemosphere, 2007, 69, 1032-1039.	4.2	55
35	Rhizosphere microbial diversity as influenced by humic substance amendments and chemical composition of rhizodeposits. Journal of Geochemical Exploration, 2013, 129, 82-94.	1.5	54
36	Molecular Characteristics of Humic Acids Isolated from Vermicomposts and Their Relationship to Bioactivity. Journal of Agricultural and Food Chemistry, 2014, 62, 11412-11419.	2.4	54

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37	Enhancing sustainability of a processing tomato cultivation system by using bioactive compost teas. <i>Scientia Horticulturae</i> , 2016, 202, 117-124.	1.7	54
38	Molecular Characterization of Compost at Increasing Stages of Maturity. 1. Chemical Fractionation and Infrared Spectroscopy. <i>Journal of Agricultural and Food Chemistry</i> , 2007, 55, 2293-2302.	2.4	50
39	Humic extracts of hydrochar and Amazonian Dark Earth: Molecular characteristics and effects on maize seed germination. <i>Science of the Total Environment</i> , 2020, 708, 135000.	3.9	48
40	Carbon deposition in soil rhizosphere following amendments with compost and its soluble fractions, as evaluated by combined soil-plant rhizobox and reporter gene systems. <i>Chemosphere</i> , 2008, 73, 1292-1299.	4.2	47
41	Molecular properties of a fermented manure preparation used as field spray in biodynamic agriculture. <i>Environmental Science and Pollution Research</i> , 2012, 19, 4214-4225.	2.7	47
42	Effects of some dicarboxylic acids on the association of dissolved humic substances. <i>Biology and Fertility of Soils</i> , 2003, 37, 255-259.	2.3	45
43	Phosphorus speciation and high-affinity transporters are influenced by humic substances. <i>Journal of Plant Nutrition and Soil Science</i> , 2016, 179, 206-214.	1.1	45
44	An alternative to mineral phosphorus fertilizers: The combined effects of <i>Trichoderma harzianum</i> and compost on <i>Zea mays</i> , as revealed by ¹ H NMR and GC-MS metabolomics. <i>PLoS ONE</i> , 2018, 13, e0209664.	1.1	45
45	BIOACTIVITY AND CHEMICAL CHARACTERISTICS OF HUMIC ACIDS FROM TROPICAL SOILS SEQUENCE. <i>Soil Science</i> , 2008, 173, 624-637.	0.9	44
46	Metabolomic by ¹ H NMR Spectroscopy Differentiates Fiano Di Avellino White Wines Obtained with Different Yeast Strains. <i>Journal of Agricultural and Food Chemistry</i> , 2013, 61, 10816-10822.	2.4	44
47	Molecular changes of soil organic matter induced by root exudates in a rice paddy under CO ₂ enrichment and warming of canopy air. <i>Soil Biology and Biochemistry</i> , 2019, 137, 107544.	4.2	43
48	Bioactivity and antimicrobial properties of chemically characterized compost teas from different green composts. <i>Waste Management</i> , 2021, 120, 98-107.	3.7	42
49	Molecular evaluation of soil organic matter characteristics in three agricultural soils by improved off-line thermochemolysis: The effect of hydrofluoric acid demineralisation treatment. <i>Analytica Chimica Acta</i> , 2013, 802, 46-55.	2.6	41
50	Stabilization by hydrophobic protection as a molecular mechanism for organic carbon sequestration in maize-amended rice paddy soils. <i>Science of the Total Environment</i> , 2013, 458-460, 319-330.	3.9	41
51	Effects of field managements for soil organic matter stabilization on water-stable aggregate distribution and aggregate stability in three agricultural soils. <i>Journal of Geochemical Exploration</i> , 2013, 129, 45-51.	1.5	41
52	Advanced CPMAS- ¹³ C NMR techniques for molecular characterization of size-separated fractions from a soil humic acid. <i>Analytical and Bioanalytical Chemistry</i> , 2006, 386, 382-390.	1.9	40
53	Microbiological Features and Bioactivity of a Fermented Manure Product (Preparation 500) Used in Biodynamic Agriculture. <i>Journal of Microbiology and Biotechnology</i> , 2013, 23, 644-651.	0.9	40
54	Molecular changes in organic matter of a compost-amended soil. <i>European Journal of Soil Science</i> , 2009, 60, 287-296.	1.8	39

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55	Unveiling the molecular composition of the unextractable soil organic fraction (humins) by humeomics. <i>Biology and Fertility of Soils</i> , 2015, 51, 443-451.	2.3	39
56	Transformation of organic matter from maize residues into labile and humic fractions of three European soils as revealed by ¹³ C distribution and CPMAS-NMR spectra. <i>European Journal of Soil Science</i> , 2000, 51, 583-594.	1.8	39
57	Decomposition of maize straw in three European soils as revealed by DRIFT spectra of soil particle fractions. <i>Geoderma</i> , 2001, 99, 245-260.	2.3	38
58	Multivariate analysis of CPMAS ¹³ C-NMR spectra of soils and humic matter as a tool to evaluate organic carbon quality in natural systems. <i>European Journal of Soil Science</i> , 2008, 59, 496-504.	1.8	34
59	Separation of molecular constituents from a humic acid by solid-phase extraction following a transesterification reaction. <i>Talanta</i> , 2006, 68, 1135-1142.	2.9	33
60	Molecular characteristics of vermicompost and their relationship to preservation of inoculated nitrogen-fixing bacteria. <i>Journal of Analytical and Applied Pyrolysis</i> , 2013, 104, 540-550.	2.6	33
61	Spectroscopic Characterization of Compost at Different Maturity Stages. <i>Clean - Soil, Air, Water</i> , 2008, 36, 152-157.	0.7	32
62	Carbon Sequestration in Soil by in Situ Catalyzed Photo-Oxidative Polymerization of Soil Organic Matter. <i>Environmental Science & Technology</i> , 2011, 45, 6697-6702.	4.6	32
63	Evaluation of molecular properties of humic acids from vermicompost by ¹³ C-CPMAS-NMR spectroscopy and thermochemolysis-MS. <i>Journal of Analytical and Applied Pyrolysis</i> , 2019, 141, 104634.	2.6	32
64	Molecular Characterization of a Compost and Its Water-Soluble Fractions. <i>Journal of Agricultural and Food Chemistry</i> , 2008, 56, 1017-1024.	2.4	31
65	Influence of the addition of organic residues on carbohydrate content and structural stability of some highland soils in Ethiopia. <i>Soil Use and Management</i> , 2002, 18, 404-411.	2.6	31
66	Effect of humic acids on phosphate level and energetic metabolism of tobacco BY-2 suspension cell cultures. <i>Environmental and Experimental Botany</i> , 2009, 65, 287-295.	2.0	29
67	Disease suppressiveness of agricultural greenwaste composts as related to chemical and bio-based properties shaped by different on-farm composting methods. <i>Biological Control</i> , 2019, 137, 104026.	1.4	29
68	Infrared spectra of soil organic matter under a primary vegetation sequence. <i>Chemical and Biological Technologies in Agriculture</i> , 2020, 7, .	1.9	28
69	Evaluation of the factors affecting direct polarization solid state ³¹ P-NMR spectroscopy of bulk soils. <i>European Journal of Soil Science</i> , 2008, 59, 584-591.	1.8	27
70	Alkamides: a new class of plant growth regulators linked to humic acid bioactivity. <i>Chemical and Biological Technologies in Agriculture</i> , 2019, 6, .	1.9	27
71	Interactions of Three s-Triazines with Humic Acids of Different Structure. <i>Journal of Agricultural and Food Chemistry</i> , 2008, 56, 7360-7366.	2.4	26
72	Fulvic acid affects proliferation and maturation phases in <i>Abies cephalonica</i> embryogenic cells. <i>Journal of Plant Physiology</i> , 2011, 168, 1226-1233.	1.6	26

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73	Off-line TMAH-GC/MS and NMR characterization of humic substances extracted from river sediments of northwestern São Paulo under different soil uses. <i>Science of the Total Environment</i> , 2015, 506-507, 234-240.	3.9	26
74	The Soil Humeome: Chemical Structure, Functions and Technological Perspectives. , 2019, , 183-222.		26
75	Molecular characterization of soil organic matter and its extractable humic fraction from long-term field experiments under different cropping systems. <i>Geoderma</i> , 2021, 383, 114700.	2.3	26
76	Remediation of highly contaminated soils from an industrial site by employing a combined treatment with exogeneous humic substances and oxidative biomimetic catalysis. <i>Journal of Hazardous Materials</i> , 2013, 261, 55-62.	6.5	25
77	Decomposition of bio-degradable plastic polymer in a real on-farm composting process. <i>Chemical and Biological Technologies in Agriculture</i> , 2016, 3, .	1.9	25
78	The Molecular Composition of Humus Carbon: Recalcitrance and Reactivity in Soils. , 2018, , 87-124.		25
79	Effective carbon sequestration in Italian agricultural soils by <i>in situ</i> polymerization of soil organic matter under biomimetic photocatalysis. <i>Land Degradation and Development</i> , 2018, 29, 485-494.	1.8	24
80	Humic substances from green compost increase bioactivity and antibacterial properties of essential oils in Basil leaves. <i>Chemical and Biological Technologies in Agriculture</i> , 2021, 8, .	1.9	24
81	Chemical properties of humic substances in soils of an Italian volcanic system. <i>Geoderma</i> , 2003, 117, 243-250.	2.3	23
82	Differences in fluorescence properties between humic acid and its size fractions separated by preparative HPSEC. <i>Journal of Geochemical Exploration</i> , 2013, 129, 23-27.	1.5	23
83	OMDY: a new model of organic matter decomposition based on biomolecular content as assessed by ¹³ C-CPMAS-NMR. <i>Plant and Soil</i> , 2017, 411, 377-394.	1.8	23
84	Efficient simultaneous removal of heavy metals and polychlorobiphenyls from a polluted industrial site by washing the soil with natural humic surfactants. <i>Environmental Science and Pollution Research</i> , 2021, 28, 25748-25757.	2.7	23
85	Use of a New Hybrid Sol-gel Zirconia Matrix in the Removal of the Herbicide MCPA: A Sorption/Degradation Process. <i>Environmental Science & Technology</i> , 2012, 46, 1755-1763.	4.6	21
86	Humic extracts from hydrochar and Amazonian Anthrosol: Molecular features and metal binding properties using EEM-PARAFAC and 2D FTIR correlation analyses. <i>Chemosphere</i> , 2020, 256, 127110.	4.2	21
87	Characterization of typical aquatic humic substances in areas of sugarcane cultivation in Brazil using tetramethylammonium hydroxide thermochemolysis. <i>Science of the Total Environment</i> , 2015, 518-519, 201-208.	3.9	20
88	Remediation of Waters Contaminated with MCPA by the Yeasts <i>Lipomyces starkeyi</i> Entrapped in a Sol-gel Zirconia Matrix. <i>Environmental Science & Technology</i> , 2010, 44, 9476-9481.	4.6	18
89	Amendments with humified compost effectively sequester organic carbon in agricultural soils. <i>Land Degradation and Development</i> , 2020, 31, 1206-1216.	1.8	17
90	Humic acids trigger the weak acids stress response in maize seedlings. <i>Chemical and Biological Technologies in Agriculture</i> , 2020, 7, .	1.9	16

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91	Reduced Toxicity of Olive Mill Waste Waters by Oxidative Coupling with Biomimetic Catalysis. <i>Environmental Science & Technology</i> , 2008, 42, 4896-4901.	4.6	14
92	In situ photo-polymerization of soil organic matter by heterogeneous nano-TiO ₂ and biomimetic metal-porphyrin catalysts. <i>Biology and Fertility of Soils</i> , 2016, 52, 585-593.	2.3	14
93	Influence of the addition of organic residues on carbohydrate content and structural stability of some highland soils in Ethiopia. <i>Soil Use and Management</i> , 2002, 18, 404-411.	2.6	13
94	Soil Amendments with Lignocellulosic Residues of Biorefinery Processes Affect Soil Organic Matter Accumulation and Microbial Growth. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 3381-3391.	3.2	11
95	Insights on Molecular Characteristics of Hydrochars by ¹³ C-NMR and Off-Line TMAH-GC/MS and Assessment of Their Potential Use as Plant Growth Promoters. <i>Molecules</i> , 2021, 26, 1026.	1.7	11
96	Acclimation with humic acids enhances maize and tomato tolerance to salinity. <i>Chemical and Biological Technologies in Agriculture</i> , 2021, 8, .	1.9	11
97	Degradation of 2,4-dichlorophenol and coupling into humic matter by oxidative biomimetic catalysis with iron-porphyrin. <i>Journal of Geochemical Exploration</i> , 2013, 129, 28-33.	1.5	10
98	Hydrochar obtained with by-products from the sugarcane industry: Molecular features and effects of extracts on maize seed germination. <i>Journal of Environmental Management</i> , 2021, 281, 111878.	3.8	10
99	Carbon Sequestration in Soils by Hydrophobic Protection and In Situ Catalyzed Photo-Polymerization of Soil Organic Matter (SOM): Chemical and Physical Aspects of SOM in Field Plots. , 2012, , 61-105.		10
100	Molecular dynamics of organic matter in a tilled soil under short term wheat cultivation. <i>Soil and Tillage Research</i> , 2020, 196, 104448.	2.6	9
101	In situ polymerization of soil organic matter by oxidative biomimetic catalysis. <i>Chemical and Biological Technologies in Agriculture</i> , 2017, 4, .	1.9	7
102	The Stable Isotopes Approach to Study C and N Sequestration Processes in a Plant-Soil System. , 2012, , 107-144.		7
103	Changes in water-extractable organic matter in tropical forest and agricultural soils as detected by the DRIFT spectroscopy technique. <i>Land Degradation and Development</i> , 2021, 32, 4755.	1.8	6
104	Molecular Properties and Functions of Humic Substances and Humic-Like Substances (HULIS) from Biomass and Their Transformation Products. , 2016, , 85-114.		5
105	Molecular properties of the Humeome of two calcareous grassland soils as revealed by GC/qTOF-MS and NMR spectroscopy. <i>Chemosphere</i> , 2021, 279, 130518.	4.2	5
106	Conformational Distribution of Dissolved Organic Matter Released from Compost by Repeated Water Extractions. <i>Compost Science and Utilization</i> , 2010, 18, 105-110.	1.2	4
107	New Modeling Approach to Describe and Predict Carbon Sequestration Dynamics in Agricultural Soils. , 2012, , 291-307.		4
108	Differences in nutrients, organic components and decomposition pattern of <i>Phillyrea angustifolia</i> leaf litter across a low maquis. <i>Plant and Soil</i> , 2021, 464, 559-578.	1.8	3

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109	Multi-Parameter Characterization of Disease-Suppressive Bio-composts from Aromatic Plant Residues Evaluated for Garden Cress (<i>Lepidium sativum</i> L.) Cultivation. <i>Horticulturae</i> , 2022, 8, 632.	1.2	3
110	State of the Art of CPMA ¹³ C-NMR Spectroscopy Applied to Natural Organic Matter. <i>ChemInform</i> , 2004, 35, no.	0.1	1
111	Soil Organic Matter Quality From Soils Cropped by Traditional Peasants. <i>Sustainable Agriculture Research</i> , 2014, 3, 63.	0.2	1
112	Molecular Sizes and Association Forces of Humic Substances in Solution. , 0, , 89-118.		1
113	Mitigation of GHGs Emission From Soils by a Catalyzed In-Situ Photo-Oxidative Polymerization of Soil Organic Matter. <i>Nature Precedings</i> , 2010, , .	0.1	0